

## Gene Section

### Short Communication

# CIP29 (cytokine induced protein 29 kDa)

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## Identity

**Other names:** HCC-1

**Location:** 12q13

**Note:** HCC-1 is an alias for CIP29 (12q13), but also for CCL14 (17q11.2).

## Protein

### Description

210 amino acids, 29 kDa; contains from N term to C term a SAP domain and 2 nuclear localization domains, and also 3 possible N-glycosylation sites and 9 potential phosphorylation sites. A SAP domain is a putative DNA binding motif involved in chromosomal organization and may regulate transcription, DNA repair, RNA processing.

### Expression

Widely expressed in fetal and adult tissues, as well as cancer cell lines; upregulated by EPO (erythropoietin), TPO (thrombopoietin), FL (FLT3 Ligand), and SCF (stem cell factor). Associated with cell cycle progression.

### Localisation

Nucleus but some staining was also found in the cytoplasm.

## Implicated in

**M4 acute non lymphocytic leukaemia (ANLL) with t(11;12)(q23;q13) --> (MLL/CIP29)**

**Note:** Only one case to date.

### Prognosis

Unknown.

### Hybrid/Mutated gene

5' MLL - 3' CIP29 including the 9 first exons of MLL, and nearly the entire CIP29.

### Abnormal protein

The fusion protein includes from N term to C term the AT hooks and the methyltransferase domain of MLL and the SAP domain and the C term nuclear localization domains of CIP29.

## References

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